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From:

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# SECOND APPEAL BRIEF U.S. PAT. App. SER. No. 09/646,802

Contents:

11 pages of Appeal Brief

Because the fees for filing a Notice of Appeal and for filing an Appeal Brief have already been paid (on May 12, 2004 and August 10, 2004, respectively), and a final Board decision has not been made regarding that appeal, it is believed that no fees are required at this time. However, if any fees are required at this time, please charge them to our Deposit Account 03-2412.

Cohen, Pontani, Lieberman Land Pavane

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APR 1 8 2005

Attorney Docket # 4925-88PUS

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. National Stage Application of

Petteri PUTKIRANTA

U.S. Pat. App. Serial No.:

09/646,802

Nat'l Stage entered:

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Internat'l Stage Appln. No.: PCT/FI99/00227

Internat'l Filing Date:

March 23, 1999

Priority date:

March 23, 1998

For:

Method And System For

**Using Location Dependent Services** 

In A Cellular Radio System

Examiner: Smith, S. B. Group Art: 2681

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## APPEAL BRIEF

SIR:

In response to an Appeal Brief filed on August 10, 2004, the Examiner reopened prosecution by issuing an Office Action on November 16, 2004. On February 16, 2005, appellant requested that the previous appeal in this application be reinstated. Consequently, this is appellant's (second) brief in accordance with 37 C.F.R. §41.37.

Because the fees for filing a Notice of Appeal and for filing an Appeal Brief have already been paid (on May 12, 2004 and August 10, 2004, respectively), and a final Board decision has not been made regarding that appeal, it is believed that no fees are required at this time. However, if any fees are required at this time, please charge them to our Deposit Account 03-2412.

The sections below are numbered in accordance with §41.37(c).

#### **(1)** Real Party in Interest:

The real party of interest herein is Nokia Networks OY, P.O. Box 300, Nokia Group, Finland, FIN-00045.

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#### (ii) Related Appeals and Interferences:

There are no related appeals and/or interferences of which appellant is aware.

#### (iii) Status of Claims:

Claims 1-12 are pending, with Claims 1, 5, and 7 being in independent form. In the November 16, 2004 Office Action which reopened prosecution after the first Appeal Brief was filed (August 10, 2004), all claims were rejected under §102(e) as anticipated by US 5,950,125 to Buhrmann et al. (hereinafter Buhrmann). This rejection of all claims is being appealed.

#### (iv) Status of Amendments:

There was no amendment filed subsequent to the final rejection.

#### (v) Summary of Claimed Subject Matter:

#### **Independent Claim 1**

Independent Claim 1 of the present application recites a communications system having base stations which provide communication links to mobile stations and at least one localized service area. As shown in FIG. 1 of the present application, a telecommunications system has Base (Transceiver) Stations (BTSs) 101, a Localized Service Area (LSA) 111, and a mobile station (MS) 104 with a link to at least one BTS 101 in a Location Area (LA) 105. To understand the claims in the present application, it is important to understand the definition of localized service area (LSA 111) and the difference between the LSA 111 and the LA 105 as shown in FIG. 1. As stated in the application (page 3, lines 11-19): "a localized service area may comprise a base station cell, several cells, a location (LA), a public land mobile network (PMLN), an area defined by coordinates, certain cell identifiers, or an area in which base stations send to mobile stations some other identifier." As would be known to one skilled in the relevant art at the time this application was filed, a localized service area is not geographic, but rather administrative, a "location" within the cellular network (e.g., a particular cell). Although a localized service area will cover a geographic

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area, it is not defined by a geographic area, but rather by the picocells, microcells, cells, cell sectors, etc. which comprise it (which may or may not be physically located near each other). In fact, a localized service area may be defined in chronological terms, i.e., it will exist at a particular time at a particular place (see, e.g., page 6, line 35, to page 7, line 5).

The communications system of Claim 1 comprises a "service server" and a "means for changing the service selection offered to a mobile station". The service server (108 in FIG. 2, 305 in FIG. 3) maintains information concerning the "location of mobile stations in localized service areas" (see, e.g., page 7, line 31, to page 8, line 6). When the service server "[receives], from the mobile stations, mobile station generated messages describing the location of the mobile stations in relation to localized service areas", the service server may generate a request to change the service selection offered the mobile stations in response. For example, when a service server receives a mobile station-generated message indicating that the mobile station is in a particular localized service area, the service server reads which services should be offered to the mobile station in that localized service area, and then sends a request to the appropriate application server (see, e.g., page 7, line 34, to page 8, line 3).

The "means for changing the service selection offered to a mobile station" in Claim 1 is described in the present application at least by the application server shown as AS 109 in FIG. 2 and/or by the combination of the application server and the service server shown as SS/AS 305 in FIG. 3. For example, when the application server receives the request message from a separate service server, it "determines in block 508 [of FIG. 5] whether the message calls for starting or termination of service" (page 11, lines 25-27), and then either starts or stops the service(s) (page 11, lines 27-29).

### **Independent Claim 5**

Claim 5 recites a 'cellular mobile station" (such as MS 104 in FIGS. 1 and/or 2) comprising a "memory means adapted so as to store the information required for recognizing a localized service area". For example, as shown in the cellular mobile station of FIG. 4, removable memory unit 403 stores information 407, 408 about two localized service areas (LSA1, LSA2), the mobile station

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"recognizes" the localized service area by "comparing received base transceiver station identifiers (BTS ID) with [the] list of localized service areas stored in memory" (page 11, lines 7-11).

Claim 5 further recites that the mobile station "is adapted ... to send a notification of its arrival in the localized service area in response to the recognition of the localized service area, said notification being intended as an impulse for changing the service selection offered to the mobile station." An example of this is shown in FIG. 2, where block 202 in MS 104 "refers to the comparison at the mobile station with an identifier list, or some other activity on the basis of which the mobile station detects that it has arrived in a certain localized service area" (page 7, lines 16-18) which results in notification message 203 being sent to service server SS 108 (page 7, lines 18-23).

#### **Independent Claim 7**

Claim 7 recites a method for changing the service selection offered to a mobile station by (1) "receiving from the mobile station a message indicating that the mobile station has detected that it is in the localized service area", (2) "generating information" based on that received message, and (3) "changing the service selection offered to said mobile station by the communication system." An example of the first step can be seen in FIG. 5, where step 504 has the service server receiving the notification from the mobile station (see also page 11, lines 17-19), or in FIG. 2, where service server SS 108 can be seen receiving message 203 from MS 104 (see also page 7, lines 18-30). An example of the second step can be seen in at least steps 505 and 506 of FIG. 5, where the service server determines whether a service needs to be started or terminated based on the received message, and then transmits a request to either terminate/start a service to the application server (see also page 11, lines 21-27). An example of the third step can be seen in steps 509-510 of FIG. 5, where the application server either starts (step 509) or stops (step 510) a service offered to the mobile station (see also page 11, lines 25-29).

#### (vi) Grounds of Rejection to be Reviewed on Appeal:

All claims stand rejected under §102(e) as anticipated by *Buhrmann*. This is the sole ground for rejection and, thus, is the sole rejection to be reviewed in this appeal.

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#### (vii) Argument:

#### Independent Claims 1, 5, and 7 considered as a group

The general concept of providing the user of a cellular radio communications system with a location-dependent service profile is known in the prior art. In such a system, a mobile station, such as a cell phone, may have different services depending on the picocell, microcell, cell, and/or cell sector with which it has a current communication link. The cited reference, *Buhrmann*, discloses such a prior art system: a mobile telephone switching office (MTSO), *e.g.*, the Mobile Services Switching Center (MSC), stores a plurality of "service profiles," where each service profile corresponds to either a specific cellular phone or a specific subscriber. The service profile indicates the features or services to which that phone or subscriber is entitled.

In such prior art systems, the MTSO must determine if any particular cell phone is in a localized service area in order to provide and/or maintain the location-dependent services.

By contrast, the invention recited in independent Claims 1, 5, and 7 moves some of the maintenance and control tasks for location-dependent services out from the MTSO/MSC to the mobile stations in the field. As described in the specification, the mobile station recognizes whether it is in a defined "localized service area" (see, e.g., page 7, lines 16-18, referring to block 202 in FIG. 2) and sends that information directly to the service and/or application server which will activate or deactivate localized services based on that message (see, e.g., page 2, lines 13-17; page 4, lines 13-20). Similarly, Claim 1 recites that a service server which receives a mobile station generated message describing the location of the mobile station in relation to the localized service areas; Claim 3 recites a cellular mobile station which recognizes, using a memory means, a localized service area and sends a notification of the recognized localized service area; and Claim 7 recites the step of receiving from the mobile station a message indicating that the mobile station has detected that it is in the localized service area. In short, it is the MS in Claims 1, 5, and 7 which determines whether it is in a localized service area, not another network element, such as the MTSO

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of Buhrmann, and it is the MS which notifies the network in which localized service area it is located.\*

The Examiner cites Box 443 in FIG. 4B of *Buhrmann* as teaching the limitation of a mobile station generated message describing the location of the mobile station in relation to a localized service area. This is incorrect. In step 441 (the step preceding step 443 in FIG. 4B of *Buhrmann*), the MTSO sends a user zone indication signal to the mobile station "signifying that the cellular telephone subscriber is situated in user zone X" (col. 14, lines 42-44). In other words, the MTSO tells the mobile station what user zone it is in. In step 443, the MTSO "periodically performs a test to ascertain whether or not the cellular telephone is still located in the user zone" (col. 14, lines 44-47). In other words, the MTSO, not the mobile station, is periodically determining where the mobile station is, or, to be more exact, whether the mobile station is still in the user zone.

There is no indication, suggestion, or hint in *Buhrmann* that the mobile station itself is determining its location in relation to a localized service area. In every instance in *Buhrmann*, it is the network (in the form of the MTSO) which informs the mobile station whether it is in a user zone or whether it is out of a user zone (see, e.g., steps 441, 449, and 451 in FIG. 4B; col. 11, line 59, to col. 13, line 14, especially col. 12, lines 40-64; and col. 14, line 39, to col. 15, line 6). By contrast, in independent Claims 1, 5, and 7 of the present application, it is the mobile station that notifies the network whether it is in a localized service area. At least on this basis, independent Claims 1, 5, and 7 are patentable over *Buhrmann*.

#### Independent Claim 1 considered singly

Independent Claim 1 recites a "mobile station generated messages describing the location of the mobile station in relation to localized service areas". *Buhrmann* neither teaches nor suggests a mobile station generating a message describing the location of the mobile station in relation to one or more localized service areas. At least on this basis, independent Claim 1 is patentable over *Buhrmann*.

As stated above, a "localized service area" is not a geographic, but rather an administrative or system location. which can even be defined in chronological terms, i.e., a localized service area can exist only at a particular time at a particular place.

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## Independent Claim 5 considered singly

Independent Claim 5 recites a cellular mobile station comprising a memory means "adapted so as to store the information required for recognizing a localized service area". *Buhrmann* neither teaches nor suggests a mobile station having a memory capable of storing information required for recognizing a localized service area. At least on this basis, independent Claim 5 is patentable over *Buhrmann*.

#### Independent Claim 7 considered singly

Independent Claim 7 recites a method for changing a service selection comprising, among other steps, the step of "receiving from the mobile station a message indicating that the mobile station has detected that it is in the localized service area". *Buhrmann* neither teaches nor suggests a mobile station detecting that it is in a localized service area, or such a mobile station transmitting a message indicating such detection. At least on this basis, independent Claim 7 is patentable over *Buhrmann*.

In summary, *Buhrmann* neither teaches nor suggests the invention recited in the claims of the present application. Withdrawal of the rejection, and the allowance of all claims, is respectfully requested.

#### <u>Addendum</u>

It should be noted that the rejection in the November 17, 2004 Office Action is an almost verbatim copy of the rejection in the first Office Action (dated June 6, 2003). Even the typographical error of calling *Buhrmann* "Buhrmannet et al." is duplicated in the present Office Action (see, e.g., page 3, line 5, of the November 16, 2004 Office Action and page 3, line 5, of the June 6, 2003 Office Action).

The only substantive differences between the June 6, 2003 Office Action and the November 16, 2004 Office Action is that (1) the first rejection was a §103(a) obviousness rejection and the present rejection is a §102(e) anticipation rejection; and (2) the Examiner now alleges that the limitation of "...mobile station generated messages describing the location of the mobile stations in relation to localized service areas..." is disclosed by block 443 in FIG. 4B of Buhrmann in the

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recent Office Action (see page 3, lines 1-4, in the November 16, 2004 Office Action), whereas the Examiner took "Official Notice" of this "well known" limitation in the almost two year old Office Action (see the last two lines on page 2 of the June 6, 2003 Office Action).

It should also be noted that appellant argued against the previous §103(a) rejection over *Buhrmann* in the September 8, 2003 reply to the June 6, 2003 Office Action. In response, the Examiner changed the grounds of rejection in the next, Final Office Action dated December 5, 2003; namely, the Examiner changed the §103(a) rejection from citing *Buhrmann* alone to citing *Buhrmann* in view of US 6,477,362 to *Raith et al.* It was from this rejection that the first Appeal was made. In reply to the First Appeal Brief, the Examiner reopened prosecution by issuing the November 16, 2004 Office Action which changed the §103(a) rejection to a §102(e) rejection, and switched back to citing *Buhrmann* alone.

In light of this history, appellant thought it necessary to reinstate the Appeal process rather than to repeat the previous prosecution of this application.

Respectfully submitted,

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Dated: April 18, 2005

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#### (viii) Claims Appendix:

#### This is a copy of the claims involved in this appeal:

- 1. A communications system having base stations for providing mobile stations with communications links and at least one localized service area, comprising:
  - a service server which is arranged to maintain information concerning the location of mobile stations in localized service areas and to generate requests for changing the service selection offered to mobile stations in response to receiving, from the mobile stations, mobile station generated messages describing the location of the mobile stations in relation to localized service areas; and
  - means for changing the service selection offered to a mobile station by the communications system in response to an indication of the arrival of the mobile station in said localized service area, which indication is a message generated by said mobile station.
  - 2. The communications system of claim 1, comprising:
    - an application server to provide mobile stations with different services in response to a request generated by the service server for changing the service selection.
- 3. The communications system of claim 2, wherein said service server is the same as said application server.
- 4. The communications system of claim 1, wherein it is adapted so as to change a localized service selection offered to a mobile station in response to a notification sent by the mobile station on its arrival in a localized service area.
  - A cellular mobile station having a control block, comprising:
     memory means adapted so as to store the information required for recognizing a localized service area;

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wherein the mobile station is adapted so as to send a notification of its arrival in the localized service area in response to the recognition of the localized service area, said notification being intended as an impulse for changing the service selection offered to the mobile station.

- 6. The mobile station of claim 5, wherein said memory means is located in a removable memory unit.
- 7. A method for changing the service selection offered to a mobile station in a communications system that has base stations for providing mobile stations with communications links, comprising the steps of:

receiving from the mobile station a message indicating that the mobile station has detected that it is in the localized service area;

generating information about the arrival of a mobile station in a localized service area; and

changing the service selection offered to said mobile station by the communications system.

- 8. The method of claim 7, wherein in response to the information about the arrival of a mobile station in a localized service area a predetermined additional service is offered to the mobile station.
- 9. The method of claim 8, wherein said additional service involves the sending of announcements to the mobile station.
- 10. The method of claim 7, wherein in response to the information about the arrival of a mobile station in a localized service area the quantity of services offered to the mobile station by the communications system is reduced.

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- 11. The method of claim 7, further comprising the steps of:
  - communicating a message indicating the arrival of a mobile station in a localized service area to a service server;
  - checking what services should be offered to the mobile station in that localized service area;
  - communicating a request for the services to be offered to an application server providing the services; and
  - providing, by the application server, a service to the mobile station.
- 12. The method of claim 11, wherein:
  - the step of communicating a request to an application server comprises the step of:

    communicating the request for the services to be offered to at least two application servers providing services, and
  - the step of providing, by the application server, a service to the mobile station comprises the step of:
    - providing, by each application server to which the request for the services to be offered was made, a service to the mobile station.